

EPA SEP- [REDACTED]
Save The Bay
Community-based Restoration Program
Project Proposal 8.8.07
EPA Supplemental Environmental Projects
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Program Description: Save The Bay's Community-based Restoration Program provides opportunities for the public to directly participate in hands-on restoration of Bay habitats. The program is a partnership between Save The Bay and local, state, and federal resource agencies to involve Bay Area residents in education, stewardship, and habitat restoration at regional sites. We work with local schools, corporate groups, non-profit organizations, and community volunteers to restore wetland, creek, and island habitats at multiple sites around San Francisco Bay.

Potential Proposed Save The Bay Projects for SEP Funding- [REDACTED] **SEP**

Sites: 1 **Projects:** 10 one day projects with total of 250 volunteers

Total Budget \$11,000

Staff Time \$10,000

Tools/Equipment \$1,000

Save The Bay Budget	EPA SEP Funding
Hands-on restoration implementation: 10 projects, 250 volunteers	
Project planning and management <i>Habitat Restoration Director \$40/hr x 50 hrs</i>	\$2,000
Project planning, staff and site management <i>Restoration Projects Manager \$27/hr x 11 hrs</i>	\$3,000
One-day restoration projects, including non-native plant removal, seed collection, plant propagation, outplantings, and site monitoring <i>Part-time field staff \$17.50/hr x 286 hrs</i>	\$5,000
<i>Subtotal Personnel</i>	\$10,000
Equipment and supplies	\$1,000
<i>Tools and restoration supplies including trowels, picks, mulch, bags, soil, nursery pots, etc.</i>	
Total Project Budget	\$11,000

** Note that all staff hourly rates include salary, taxes and benefits, insurance and shared expenses such as phones, copier, rent, and shared supplies.*

Save The Bay Staff: Several Save The Bay staff focus solely on implementation of our habitat restoration work at these regional partnership sites. Marilyn Latta, Habitat Restoration Director, oversees restoration planning, site monitoring, environmental consultants, and resource agency partnerships. Laura Wainer, Restoration Projects Manager, assists with overall site and nursery planning and implementation, equipment purchasing, management of field operations, and field staff management. Four part-time field instructors implement one-day restoration projects with volunteers and conduct environmental education activities.

Final Report Metrics:

Save The Bay will provide a final report of our restoration activities and project completion to EPA and to Coulter Forge at the end of the SEP project period.

This report will include:

- a one page narrative description of the work completed
- a map of the project area
- # of volunteers, # of volunteer hours
- # of pounds of invasive plants removed, species
- # of seedlings propagated and planted, species
- monitoring pictures and vegetation data sheets
- pictures of volunteers conducting restoration work

Martin Luther King, Jr. Shoreline **Location:** Oakland **Habitat Type:** tidal salt marsh
Site Partner: East Bay Regional Park District

Save The Bay is partnering with East Bay Regional Park District on a wetland restoration project at the Martin Luther King, Jr. Shoreline, near the Oakland Airport. This urban area includes some of the last remaining wetland habitat in the East Bay, including 50 acre Arrowhead Marsh, and provides a home for many species, including the California Clapper Rail and Burrowing Owls.

Record of Successful Restoration: Save The Bay has a proven track record of successful restoration planning with our site partners to develop science-based restoration plans and appropriate hands-on projects and techniques for volunteers. Because we are not a land-owning agency, we work under the guidance and permits of the site partners to accomplish habitat restoration on their lands. Site partners in turn work with a variety of permitting and planning agencies, including the State Water Resources Control Board, U.S. Geologic Survey, the Army Corps of Engineers, the Bay Conservation and Development Commission, the U.S. Environmental Protection Agency, California Department of Fish and Game, California Coastal Conservancy, California Coastal Commission, and others.

Since 2000, Save The Bay has been working with the help of schools, community groups, non-profit organizations, and corporations to revegetate salt marsh habitat at the Martin Luther King, Jr. Regional Shoreline in partnership with East Bay Regional Park District. To date, **Save The Bay has worked with a total of 16,000 volunteers at this site in more than 235 successful one day stewardship projects.** Our volunteers have removed over 100,000 pounds of non-native invasive plants and planted over 40,000 natives grown from seed in our on-site Native Plant Nursery, as well as removed over 70,000 pounds of trash and recyclables.

Proposed Restoration Activities: Restoration projects funded through this SEP proposal will include ten total one day restoration projects with community volunteers- four one day projects to remove 1,000 pounds of invasive plant material including mustard and iceplant from the site, 2 projects to conduct native seed collection and native plant propagation in our Native Plant Nursery, and four one day projects to do winter outplanting of 1,200 native seedlings including marsh gumplant, salt grass, sea lavender, and alkali heath at the site. These restoration activities done by a total of 250 students and volunteers who will contribute more than 1,000 hours of their time will help to stabilize creek, wetland, and Bay shoreline, thus improving habitat for fisheries, invertebrates, birds, and other wildlife in San Francisco Bay.

Restoration Methods: Save The Bay applies multiple restoration methods, including on-the-ground habitat restoration with volunteers. We have demonstrated success with our model working closely with resource agency site partners and training local volunteers in direct actions to restore habitat for multiple species and practice ongoing stewardship of NOAA trust resources and habitats. These important habitat restoration tasks would not be completed by limited landowner agency staff time. Methods include:

- Manual removal of invasive species, seasonal mowing, blacktarping, and mulching
- Site-specific native seed collection and propagation at Save The Bay nurseries
- Revegetation outplantings: seedlings, cuttings, vegetated mats, grass pillows
- Wetland, creek, and shoreline trash removal
- Site monitoring to evaluate restoration progress and success

Native Plant Nursery: Site-specific Native Plant Restoration

We have developed an on-site propagation program to grow native plants for our projects, both to save money on buying plants from contract nurseries, and to involve our volunteers in all stages of the restoration process. We have two on-site wetland native plant nurseries, at our Oakland and Palo Alto sites. Currently, we grow 12,000 native plants per year in each of these nurseries; volunteers are involved at all stages, from seed collection and cleaning to propagation, transplanting, and planting. This funding will support propagation of 1,600 native seedlings in the Oakland nursery.

Species for Native Plant Revegetation:

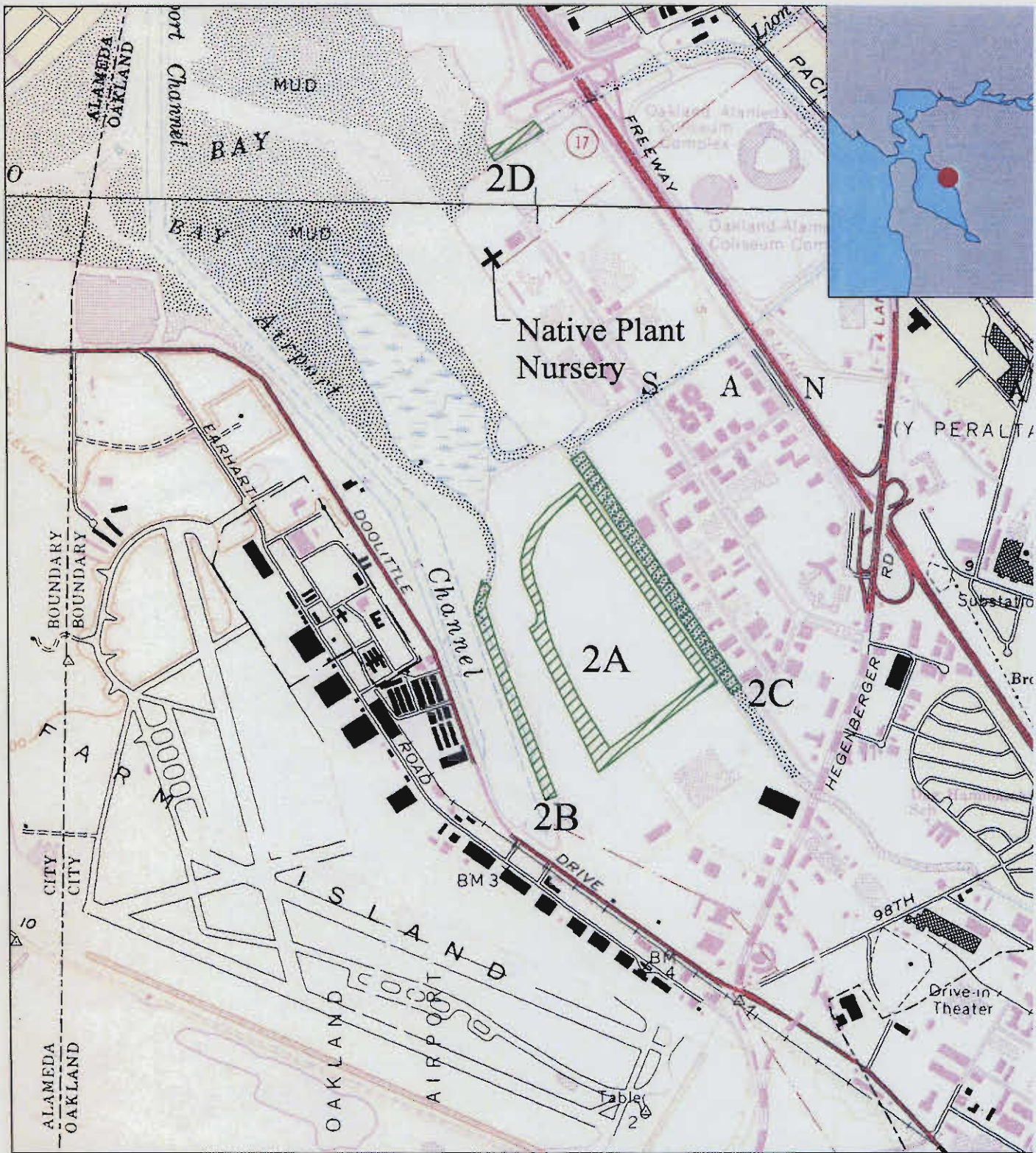
<i>Grindelia stricta</i>	Marsh Gumplant
<i>Distichlis spicata</i>	Salt Grass
<i>Frankenia salina</i>	Alkali Heath
<i>Limonium californica</i>	Sea Lavendar


Non-native species we will remove include:

<i>Lepidium latifolium</i>	Perennial Pepperweed
<i>Carpobrotus edulis</i>	Iceplant- Yellow Sea Fig
<i>Carpobrotus chilensis</i>	Iceplant- Pink Sea Fig
<i>Mesembryanthemum crystallinum</i>	Crystalline Iceplant
<i>Foeniculum vulgare</i>	Fennel
<i>Salsola soda</i>	Russian Thistle
<i>Brassica spp.</i>	Mustard

Site Monitoring: To assess accurately the success of our restoration projects, both in the amount of habitat restored and the effectiveness of restoration techniques, we developed a volunteer-friendly monitoring protocol based on the NOAA Science Based Restoration Monitoring of Coastal Habitats, which is directly aligned with the NOAA minimum monitoring requirements under Title One of the Estuary Restoration Act. We have developed comprehensive restoration plans and detailed maps of the current project sites for accuracy in tracking restoration activities and progress towards site goals. Our monitoring protocol includes the following bi-annual monitoring activities:

- GIS vegetation mapping to quantify plant communities and patch size
- Transect monitoring to assess the percentage cover before, during, and after project implementation
- Track planted seedlings by sibling groups in the nursery propagation program
- Photomonitoring before, mid-project, and at completion



 Project Areas

0' 750' 1500' 2250' 3000'
SCALE: 1"=1500'

1
NORTH

Martin Luther King Jr.
Regional Shoreline

Community-Based Restoration Program
Save San Francisco Bay Association

SAVE THE BAY

Basemap: USGS DRG 1:24000

Figure created by: Wetlands Research Associates, Inc.


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